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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

PRENDERGAST, ROBERTA D

ART UNIT	PAPER NUMBER
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2628

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02/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/727,629

Applicant(s)

PARK ET AL.

Examiner

Roberta Prendergast

Art Unit

2628

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 31 January 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: 4, 9-15, 19, 20, 26, 27 and 29.
Claim(s) rejected: 1, 3, 5-8, 16-18, 21-25, 28 and 30-33.
Claim(s) withdrawn from consideration: 2.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.


ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 1/31/2007 have been fully considered but they are not persuasive.

Applicant argues, with respect to claims 7, 16 and 17, "...Samet also teaches that blocks corresponding to non-leaf nodes are labeled GRAY. (Samet at page 2, section 2 "Octree Representation"). Thus, as non-leaf nodes that correspond to those blocks of the array for which further subdivision is required, GRAY nodes do not consist of a single value and, therefore, cannot be located at the depth of the octree. For example, FIG. 2 of Samet illustrates an exemplary tree representation in which internal/non-leaf nodes are depicted as white squares and are not located at the depth of the octree. For at least these reasons, Applicants respectfully disagree with the Office that the internal/non-leaf nodes labeled GRAY in Samet are "nodes at the predetermined depth having voxels located where objects exist and in the background." (Final Office action at page 3). Because Samet does not teach "nodes at the predetermined depth having voxels located where objects exist and in the background," Samet does not anticipate claim 7. Accordingly, for at least these reasons, Applicants respectfully request that the §102(a) rejection of claim 7 and of claims 16 and 17, which depend therefrom, be withdrawn...". Examiner respectfully submits that applicant is arguing limitations not found in the claims, i.e. GRAY nodes do not consist of a single value and, therefore, cannot be located at the depth of the octree, see page 17, lines 5-7, of Applicant's Remarks.

Applicant argues, with respect to claims 1, 6, 24, 28, 30 and 33, "...Thus, because they consist of both BLACK and WHITE voxels, the GRAY nodes cannot be located at the depth of the octree. For example, FIG. 2C of Rambally illustrates an exemplary octree in which terminal nodes are depicted as BLACK or WHITE squares, while non-terminal nodes, or GRAY nodes, are illustrated with circles. For at least these reasons, Applicants respectfully disagree with the Office that the GRAY nodes described in Rambally are "nodes at the predetermined depth having voxels located where objects exist and in the background." (Final Office action at page 5)...". Examiner respectfully submits that denoting voxels that are occupied by the objects as "BLACK" and labeling blocks/nodes "BLACK" corresponding to the color of their constituent and denoting voxels that are not occupied by the objects as "WHITE" and labeling blocks/nodes "WHITE" corresponding to the color of their constituent while also denoting blocks/nodes corresponding to non-leaf nodes in the tree as "GRAY" does describe labeling nodes having sub-nodes, nodes having all voxels located in the background, nodes having all voxels located where objects exist, and nodes at the predetermined depth having voxels located where objects exist and in the background, see the rationale for claims 1, 6, 24, 28, 30 and 33 provided in the Final Office Action mailed 11/1/2006 as well as page 1116, Introduction; pages 1116-1117, Object Representation in the Rambally et al. reference.

Applicant next argues, with respect to claims 18, 21, 22 and 31, "...At a minimum, Samet does not teach or suggest "nodes at the predetermined depth having voxels located where objects exist and in the background," as recited...". Examiner respectfully submits that denoting voxels that are occupied by the objects as "BLACK" and labeling blocks/nodes "BLACK" corresponding to the color of their constituent and denoting voxels that are not occupied by the objects as "WHITE" and labeling blocks/nodes "WHITE" corresponding to the color of their constituent while also denoting blocks/nodes corresponding to non-leaf nodes in the tree as "GRAY" does describe labeling nodes having sub-nodes, nodes having all voxels located in the background, nodes having all voxels located where objects exist, and nodes at the predetermined depth having voxels located where objects exist and in the background, see the rationale for claims 18, 21, 22 and 31 provided in the Final Office Action mailed 11/1/2006 as well as page 2, section 2 Octree representation in the Samet et al. reference.

Applicant then argues, with respect to claim 8, "...At a minimum, no combination of Samet and Moffat teaches or suggests "nodes at the predetermined depth having voxels located where objects exist and in the background," as recited in parent claim 7. Accordingly, Applicants respectfully request that the rejection under §103(a) of claim 8 be withdrawn...". Examiner respectfully submits that denoting voxels that are occupied by the objects as "BLACK" and labeling blocks/nodes "BLACK" corresponding to the color of their constituent and denoting voxels that are not occupied by the objects as "WHITE" and labeling blocks/nodes "WHITE" corresponding to the color of their constituent while also denoting blocks/nodes corresponding to non-leaf nodes in the tree as "GRAY" does describe labeling nodes having sub-nodes, nodes having all voxels located in the background, nodes having all voxels located where objects exist, and nodes at the predetermined depth having voxels located where objects exist and in the background, see the rationale for claims 18, 21, 22 and 31 above as well as page 2, section 2 Octree representation in the Samet et al. reference.

Applicant argues, with respect to claim 5, "...Samet teaches constructing a region octree by repeatedly subdividing a $2^n \times 2^n \times 2^n$ array of voxels into octants, suboctants, etc., until obtaining blocks which consist of a single value, and further teaches that GRAY nodes are non-leaf nodes that require further subdivision. Thus, the GRAY nodes in Samet do not correspond to blocks which consist of a single value and, therefore, cannot be located at the depth of the octree...". Examiner respectfully submits that applicant is arguing limitations not found in the claims, i.e. GRAY nodes do not consist of a single value and, therefore, cannot be located at the depth of the octree, see page 22-23, lines 10-1, of Applicant's Remarks.

Applicant next argues, with respect to claim 5, "...Thus, at a minimum, no combination of Prevost, Rambally, and Samet teaches or suggests "nodes at the predetermined depth having voxels located where objects exist and in the background," as recited in parent claim 1...".

Examiner respectfully submits that denoting voxels that are occupied by the objects as "BLACK" and labeling blocks/nodes "BLACK" corresponding to the color of their constituent and denoting voxels that are not occupied by the objects as "WHITE" and labeling blocks/nodes "WHITE" corresponding to the color of their constituent while also denoting blocks/nodes corresponding to non-leaf nodes in the tree as "GRAY" does describe labeling nodes having sub-nodes, nodes having all voxels located in the background, nodes having all voxels located where objects exist, and nodes at the predetermined depth having voxels located where objects exist and in the

background, see the rationale for claims 1, 6, 24, 28, 30 and 33 above as well as page 1116, Introduction; pages 1116-1117, Object Representation in the Rambally et al. reference.

Applicant argues, with respect to claims 3, 23, 25 and 32, "...GRAY nodes in Samet do not correspond to blocks which consist of a single value and, therefore, cannot be located at the depth of the octree...".
Examiner respectfully submits that applicant is arguing limitations not found in the claims, i.e. GRAY nodes do not consist of a single value and, therefore, cannot be located at the depth of the octree, see page 23, lines 11-13, of Applicant's Remarks.

Applicant next argues, with respect to claims 3, 23-25 and 32, "...Thus, at a minimum, no combination of Prevost, Rambally, and Samet teaches or suggests "nodes at the predetermined depth having voxels located where objects exist and in the background," as recited in parent claim 1...".

Examiner respectfully submits that denoting voxels that are occupied by the objects as "BLACK" and labeling blocks/nodes "BLACK" corresponding to the color of their constituent and denoting voxels that are not occupied by the objects as "WHITE" and labeling blocks/nodes "WHITE" corresponding to the color of their constituent while also denoting blocks/nodes corresponding to non-leaf nodes in the tree as "GRAY" does describe labeling nodes having sub-nodes, nodes having all voxels located in the background, nodes having all voxels located where objects exist, and nodes at the predetermined depth having voxels located where objects exist and in the background, see the rationale for claims 1, 6, 24, 28, 30 and 33 above as well as page 1116, Introduction; pages 1116-1117, Object Representation in the Rambally et al. reference..